

FIG. 1

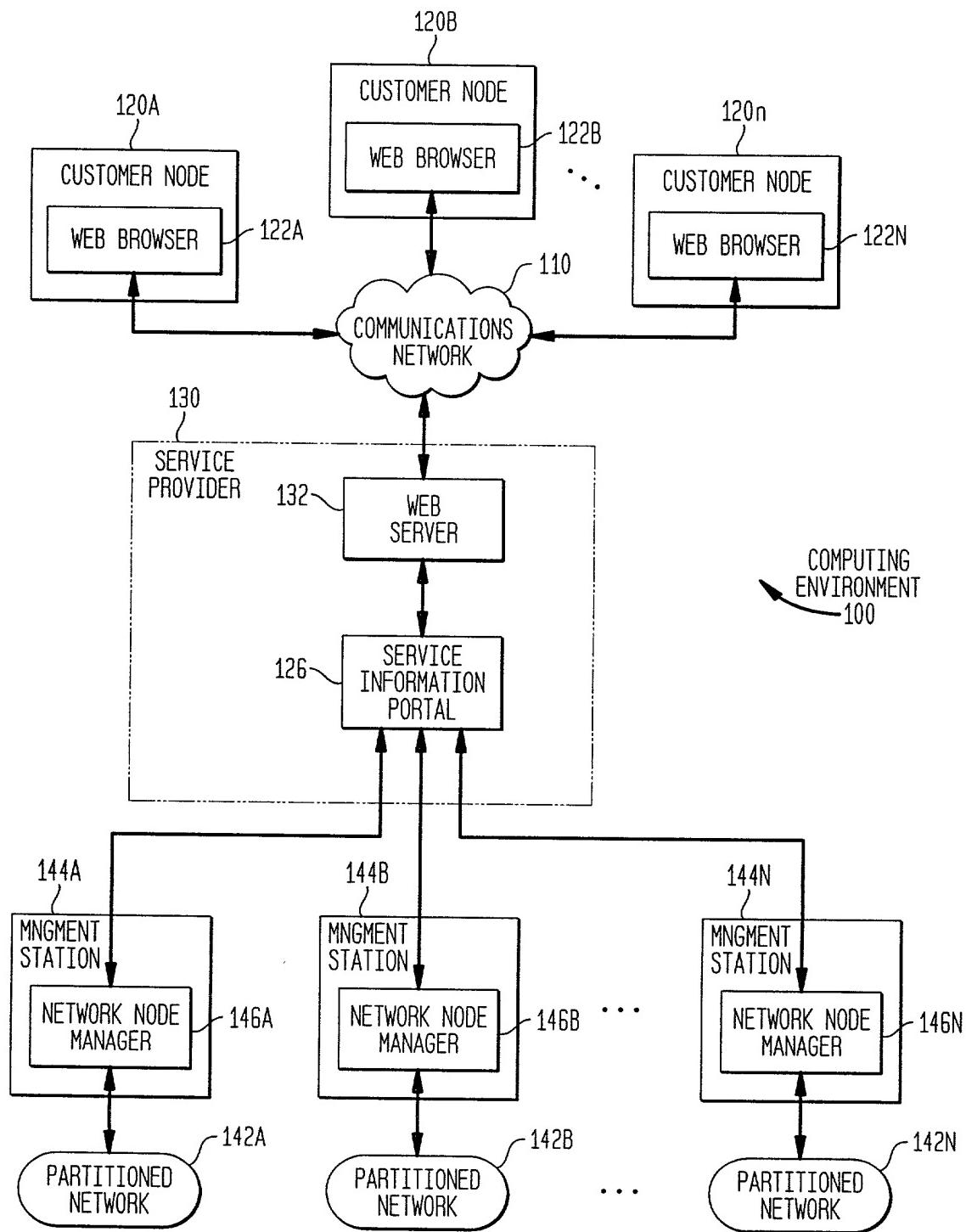


FIG. 2

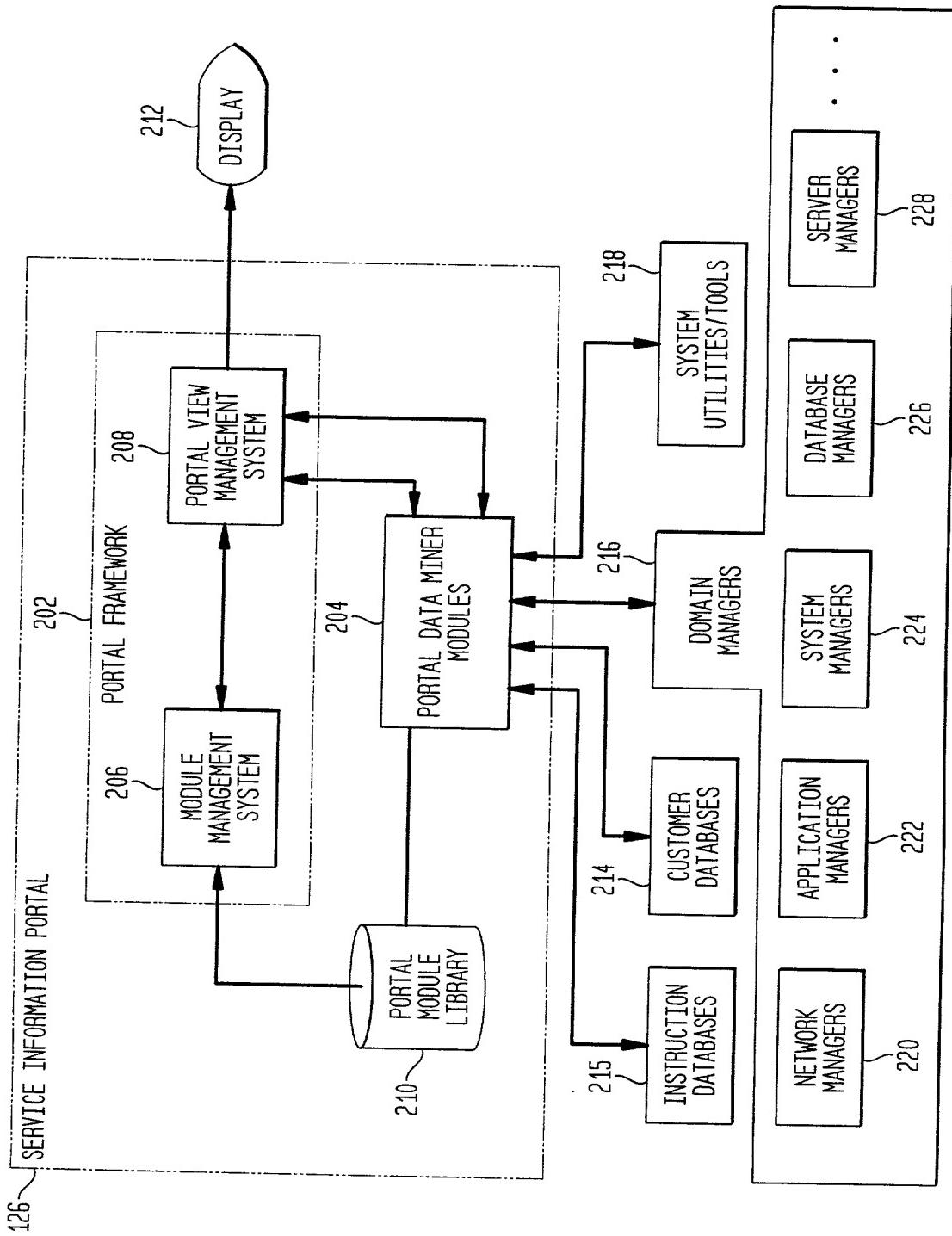
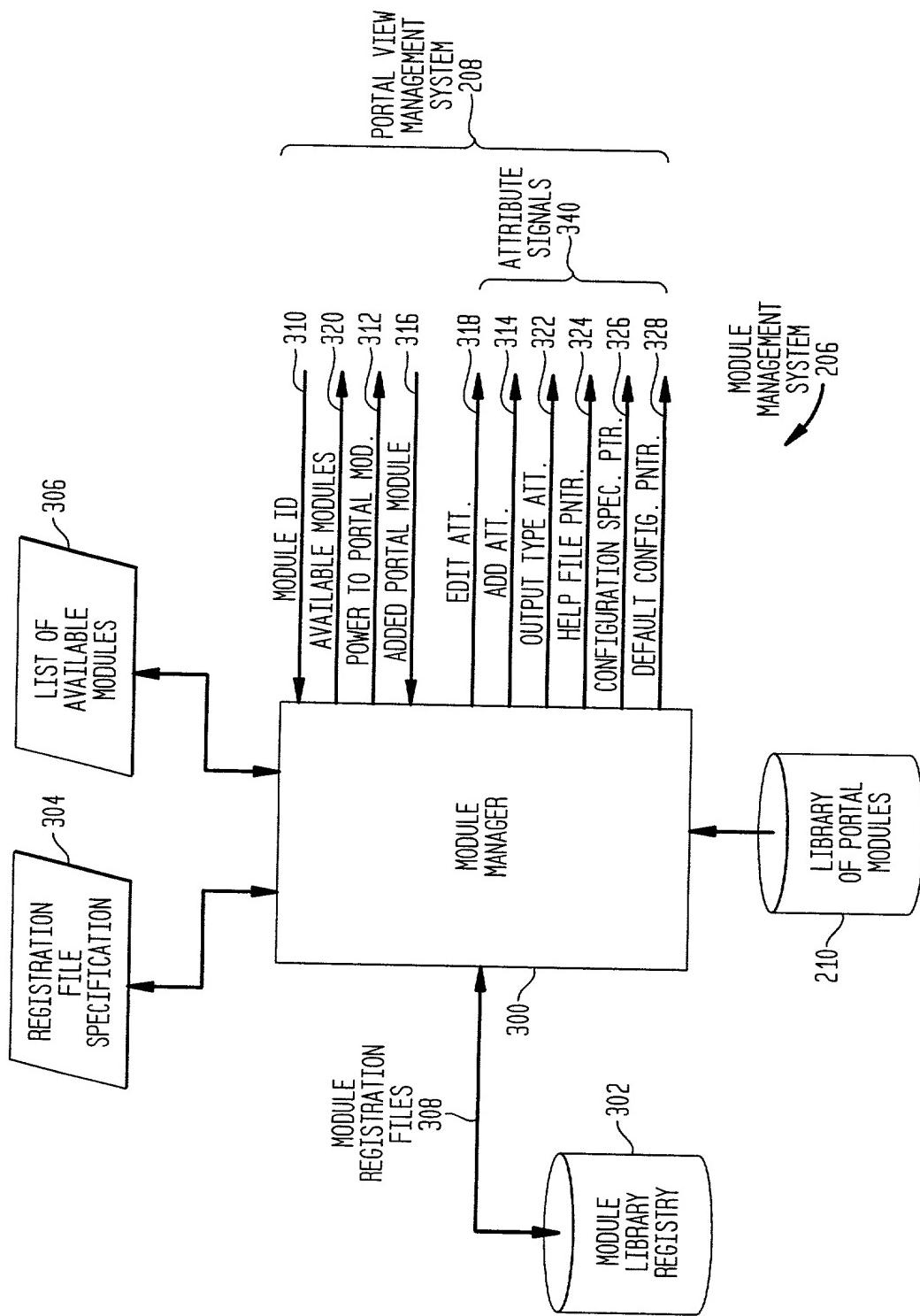
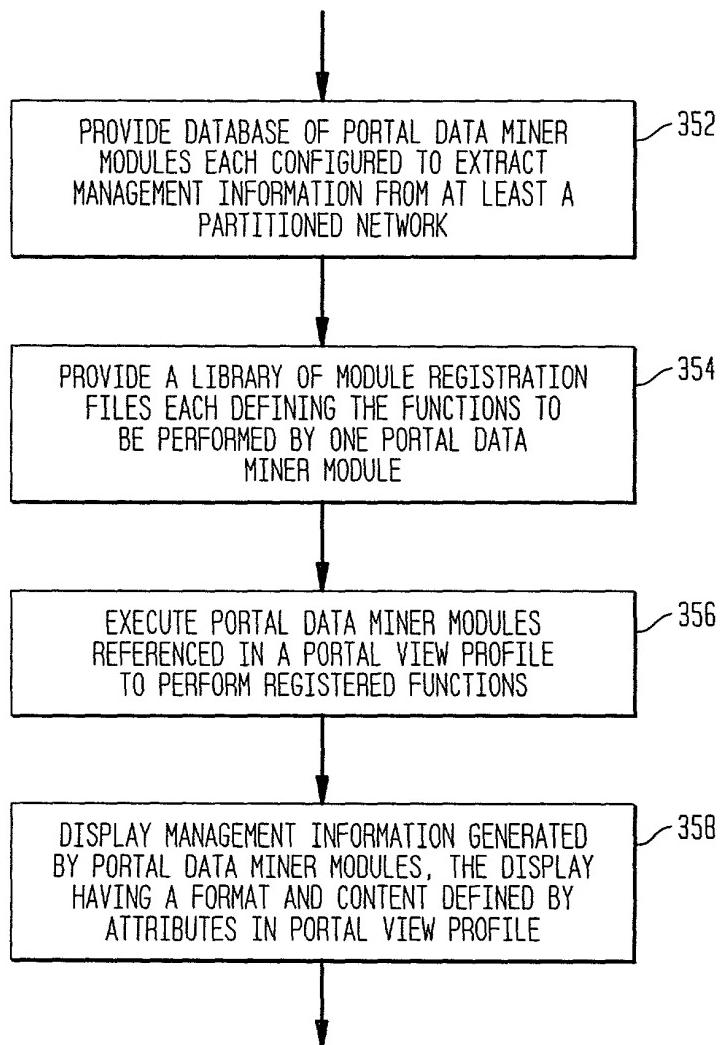


FIG. 3A



4/29

FIG. 3B



5/29

**FIG. 4**

MODULE REGISTRATION  
FILE SPECIFICATION  
400

1 <!-- OVMModuleRegistration.dtd -->  
2 <!-- Copyright (c) 2000 Hewlett-Packard  
3 Company -->  
4 <!-- \$Revision: /main/BACCHUS/8 \$ -->  
5 <!-- \$Date: 2001/03/15 00:13 UTC \$ -->  
6  
7 -<!ELEMENT ModuleRegistration EMPTY> ~~~~~ 404  
8  
9 <!ATTLIST ModuleRegistration  
10       vendorName            CDATA #IMPLIED  
11        vendorURL            CDATA #IMPLIED  
12        description          CDATA #IMPLIED  
13        version              CDATA #IMPLIED  
14        category             CDATA "General"  
15        title                CDATA #IMPLIED  
16        classid              ID    #REQUIRED  
17        implementation      CDATA #REQUIRED  
18        outputType  
19        (narrow|NARROW|wide|WIDE|any|ANY) "narrow"  
20        add  
21        (1|0|YES|yes|NO|no) "no"  
22        edit  
23        (1|0|YES|yes|NO|no) "no"  
24        help                 CDATA #IMPLIED  
25        configDTD            CDATA #IMPLIED  
26        defaultConfigXML    CDATA #IMPLIED>

HEADER DATA 402

ATTRIBUTE LIST 406

6/29

FIG. 5

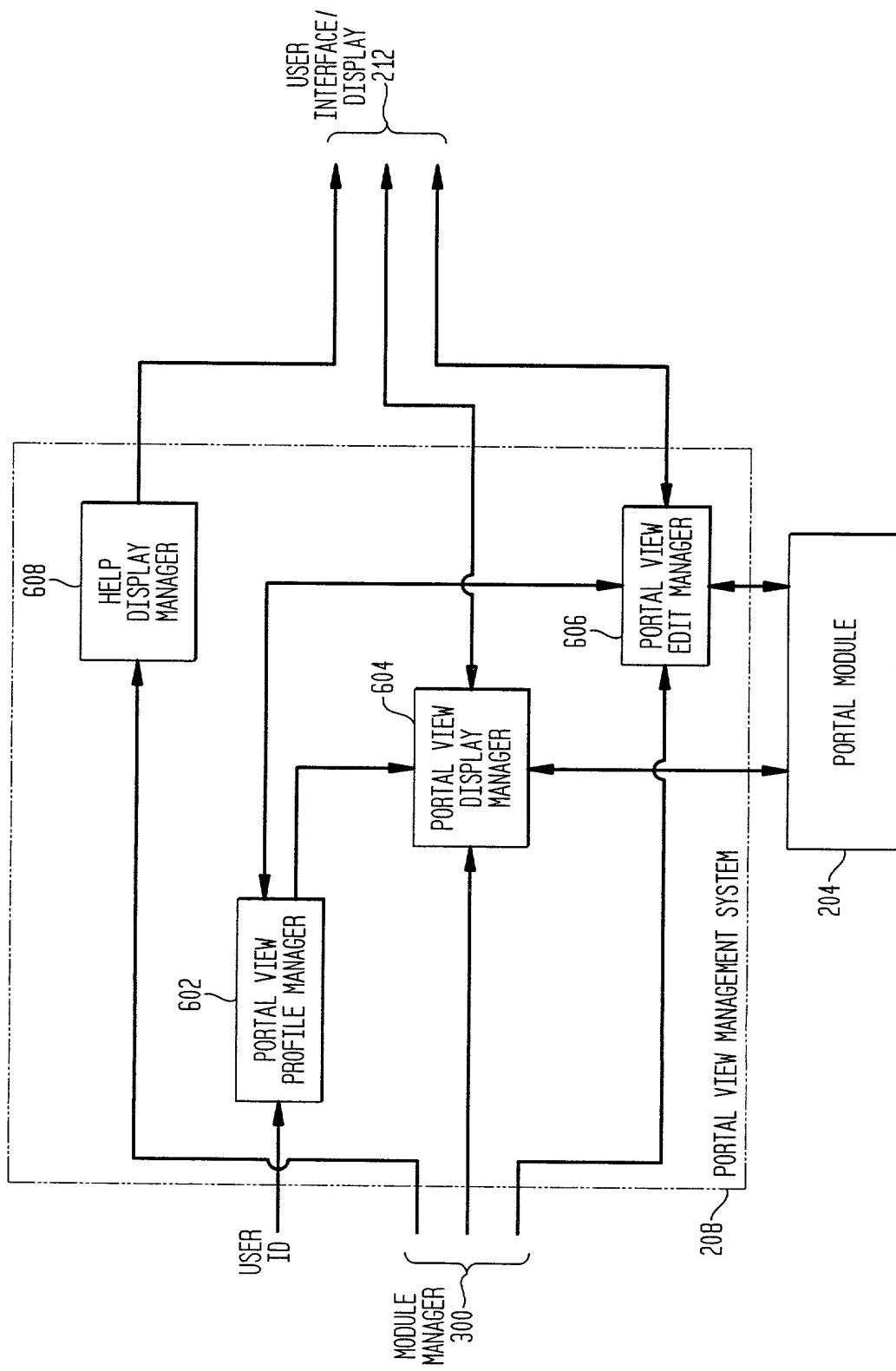
NETWORK HEALTH MODULE  
REGISTRATION FILE

500



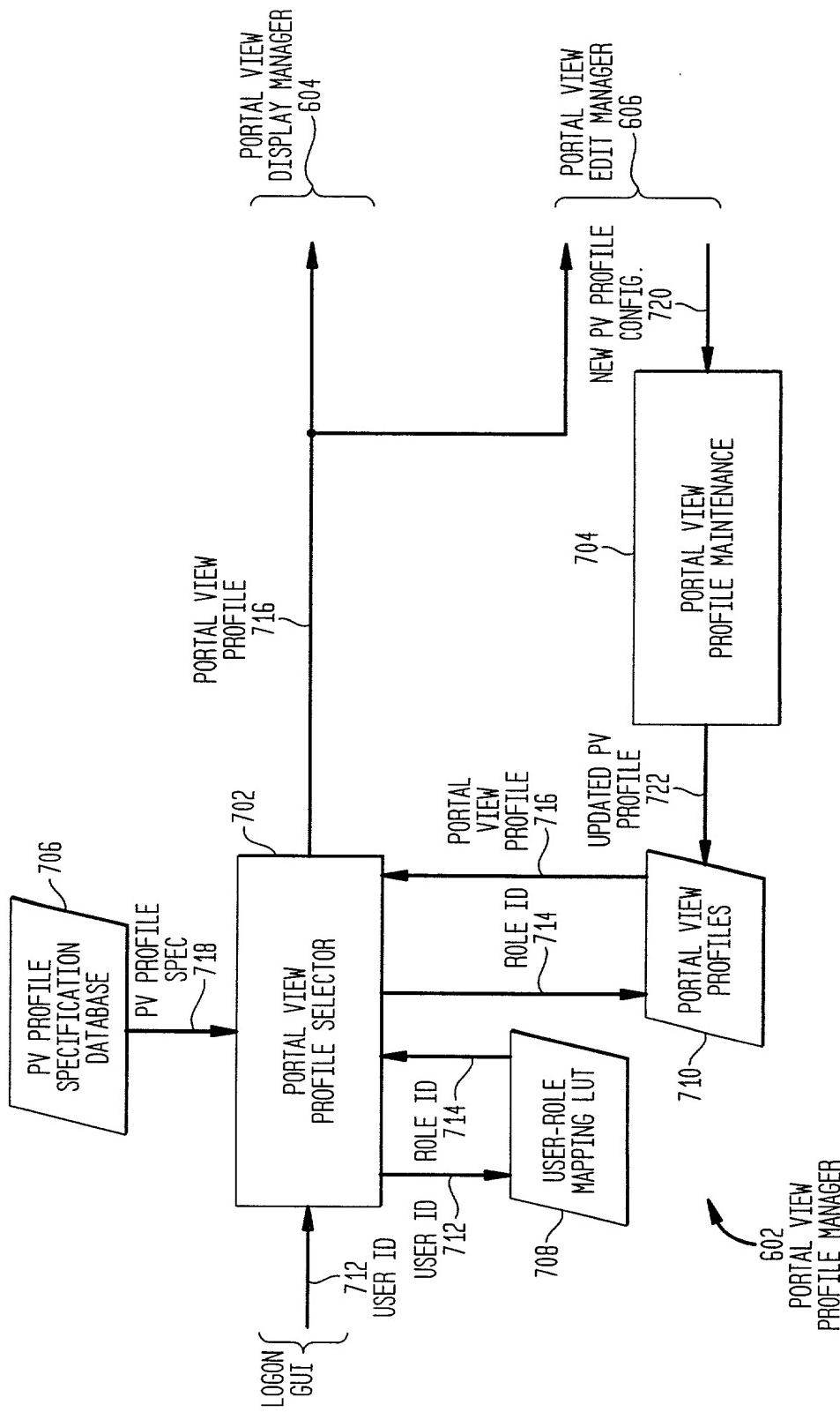
```
1 <?xml version="1.0" standalone="no"?>
2 <!DOCTYPE ModuleRegistration SYSTEM
3 "OVModuleRegistration.dtd">
4 <ModuleRegistration
5   vendorName  = "Hewlett-Packard
6     Company"
7   vendorURL   = "http://www.
8     openview.hp.com"
9   description  = "HP OpenView SIP Network
10    Device Health Module"
11  version     = "2.0"
12  category    = "NNM"
13  title       = "Network Device
14    Health"
15  classid     = "com.hp.ov.portal.
16    modules.health"
17  implementation
18    = "/servlet/com.hp.ov.
19      portal.modules.health.
20        HealthServlet"
21  outputType   = "narrow"
22  add          = "yes"
23  edit         = "yes"
24  help         = "/OvSipDocs/C/help/
25    NNM/healthView.html"
26  configDTD   = "OVNetworkHealth.dtd"
27  defaultConfigXML
28    = "defaults/
29      OVDefaultNetHealth.
30        xml"
31 />
```

FIG. 6



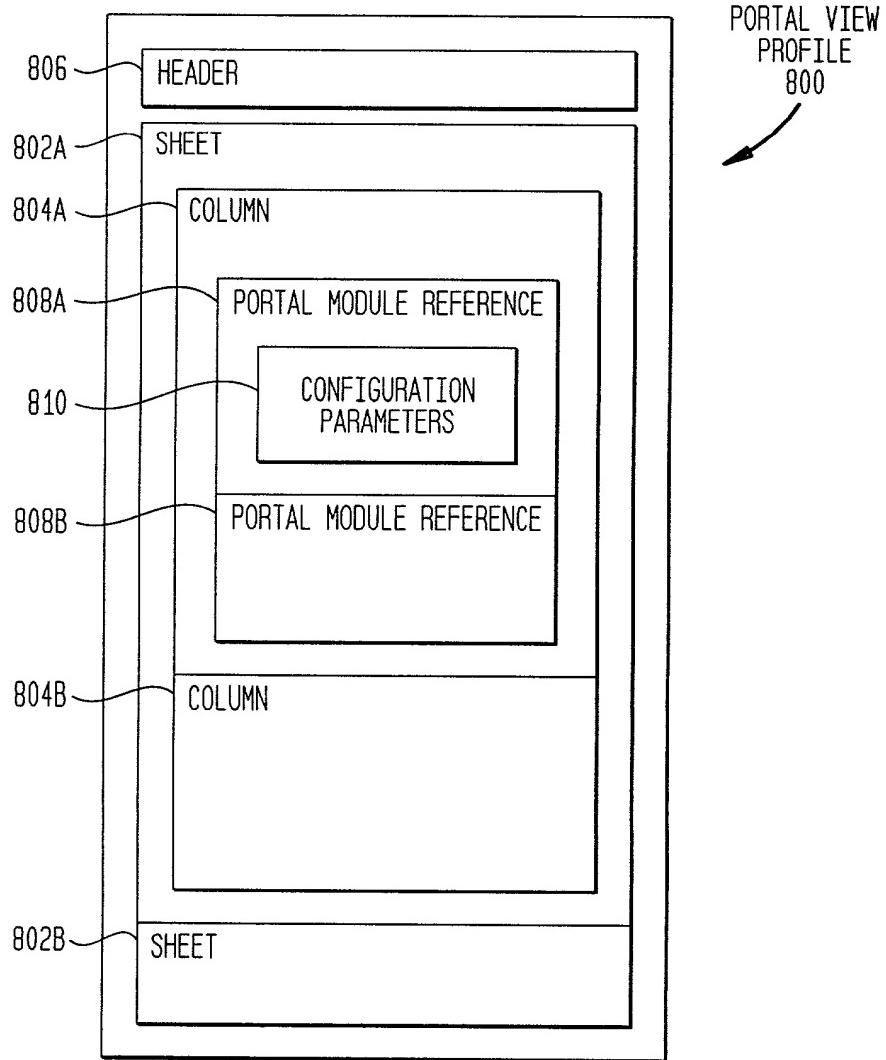
8/29

FIG. 7



9/29

FIG. 8



10/29

**FIG. 9**

NETWORK HEALTH PORTAL  
VIEW PROFILE SPECIFICATION  
900

```
1 <!-- OVNetworkHealth.dtd
2 <!-- Copyright (c) 2000 Hewlett-Packard
3 Company
4 <!-- $Revision: /main/BACCHUS/7 $
5 <!-- $Date: 2001/04/11 20:41 UTC $
6 <!--
7 <!ELEMENT NetworkHealth (Summary+)
8 <!ATTLIST NetworkHealth
9   showRawData   (yes|no|YES|NO|1|0) "no"
10  showUnknown   (yes|no|YES|NO|1|0) "no"
11 >
12
13 <!ELEMENT Summary (Component+,
14 (NodeSelection | InterfaceSelection) )
15 <!ATTLIST Summary
16   id          CDATA #REQUIRED
17   title       CDATA #REQUIRED
18   display     (yes|no|YES|NO|1|0) "yes"
19   displayDepth (1|2|3) "3"
20 >
```

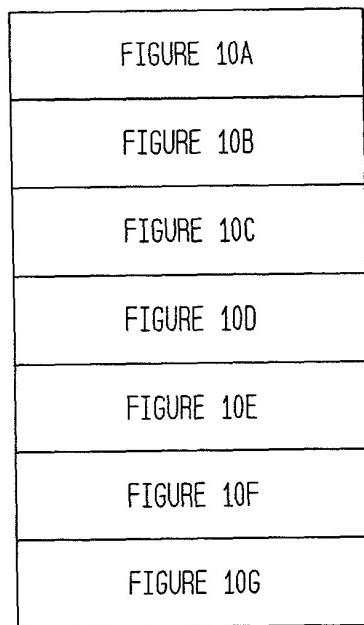
HEADER 902

NETWORK HEALTH ELEMENT SPEC. 904

SUMMARY ELEMENT SPEC. 906

11/29

*FIG. 10*



12/29

FIG. 10A



13/29

**FIG. 10B**

PORTAL  
VIEW PROFILE  
1000

↓

PORTAL MODULE  
REFERENCE  
1006A (CONT)

↓

```
32      <Summary display="yes"
33 displayDepth="3" id="RouterHealth"
34 title="Router Health">
35         <Component href="#IfHealth"
36 vital="no" weight="1"/>
37         <Component
38 href="#CiscoCpuUtil" vital="no" weight="1"/>
39             <NodeSelection id="Routers"
40 op="AND" title="Routers">
41                 <CapabilityFilter op="OR">
42                     <Capability
43 field="isRouter" value="true"/>
44                 </CapabilityFilter>
45             </NodeSelection>
46         </Summary>
47         <Summary display="no"
48 displayDepth="3" id="KeyDeviceHealth"
49 title="Key Device Health">
50         <Component href="#IfHealth"
51 vital="no" weight="1"/>
52         <NodeSelection
53 id="KeyDevices" op="AND" title="Key Devices">
54             <CapabilityFilter op="OR">
55                 <Capability
56 field="isKeyDevice" value="true"/>
57             </CapabilityFilter>
58         </NodeSelection>
59     </Summary>
```

↓

FIG. 10C

PORTAL  
VIEW PROFILE  
1000

↓

60           <Summary display="no"  
61 displayDepth="3" id="CPEHealth" title="CPE  
62 Health">  
63            <Component href="#IfHealth"  
64 vital="no" weight="1"/>  
65            <NodeSelection id="CPE"  
66 op="AND" title="Customer Premise Equipment">  
67            <CapabilityFilter op="OR">  
68            <Capability  
69 field="isCPE" value="true"/>  
70            </CapabilityFilter>  
71            </NodeSelection>  
72           </Summary>  
73           <Summary display="no"  
74 displayDepth="3" id="ServerHealth"  
75 title="Server Health">  
76            <Component href="#IfHealth"  
77 vital="no" weight="1"/>  
78            <NodeSelection id="Servers"  
79 op="AND" title="Servers">  
80            <CapabilityFilter op="OR">  
81            <Capability  
82 field="isServer" value="true"/>  
83            </CapabilityFilter>  
84            </NodeSelection>  
85           </Summary>  
86           </NetworkHealth>  
87          </ModuleInstance>

↓

PORTAL MODULE  
REFERENCE  
1006A (CONT)

15/29

*FIG. 10D*

The diagram illustrates the structure of a portal view profile. It features a dashed rectangular box representing the profile, with various XML code snippets numbered 88 through 110. Annotations with arrows point to specific parts of the code:

- An arrow labeled "PORTAL VIEW PROFILE 1000" points to the top of the dashed box.
- An arrow labeled "PORTAL MODULE REFERENCE 1006B" points to the "BookmarksModule" section (lines 89-95).
- An arrow labeled "VIEW WINDOW ATTRIBUTES 1004" points to the "Topology" module section (lines 103-106).
- An arrow labeled "PORTAL MODULE REFERENCE 1006C" points to the "TopologyMap" section (line 105).

```
88 <ModuleInstance
89 classid="com.hp.ov.portal.modules.bookmarks"
90 display="yes" id="BookmarksModule"
91 rollupState="down">
92     <Bookmarks>
93         <Entry href="http://www.hp.com"
94 target="bookmarkwin" title="HP Primary Site"/>
95         <Entry
96 href="http://www.openview.hp.com"
97 target="bookmarkwin" title="HP OpenView Site"/>
98     </Bookmarks>
99     </ModuleInstance>
100    </Column>
101    <Column width="wide">
102        <ModuleInstance
103 classid="com.hp.ov.portal.modules.topomap"
104 display="yes" id="Topology" rollupState="down">
105         <TopologyMap drillDown="no"
106 showStatus="yes">
107         <Submap
108 href="ovw://hpcndta/default/Internet"/>
109         </TopologyMap>
110     </ModuleInstance>
```

16/29

FIG. 10E

PORTAL  
VIEW PROFILE  
1000

```
111 <ModuleInstance  
112 classid="com.hp.ov.portal.modules.alarms"  
113 display="yes" id="Alarm" rollupState="down">  
114 <AlarmDisplay>  
115 <CategoryDefName  
116 href="ErrorAlarms.xml"/>  
117 <CategoryDefName  
118 href="ThresholdAlarms.xml"/>  
119 <CategoryDefName  
120 href="StatusAlarms.xml"/>  
121 <CategoryDefName  
122 href="ConfigurationAlarms.xml"/>  
123 <CategoryDefName  
124 href="ApplicationAlertAlarms.xml"/>  
125 <CategoryDefName  
126 href="AllAlarms.xml"/>  
127 </AlarmDisplay>  
128 </ModuleInstance>  
129 </Column>  
130 </Sheet>  
131 <Sheet id="ServicesSheet" title="Services">  
132 <Column width="narrow">  
133 <ModuleInstance  
134 classid="com.hp.ov.portal.modules.service.SvcCa  
135 rdServlet" display="yes"  
136 help="/OvSipDocs/C/help/VPNavigator/cardView.ht  
137 ml" id="module10" rollupState="down"  
138 title="Service Cards">  
139 <ServiceCard details="no"  
140 server="" />  
141 </ModuleInstance>
```

PORTAL MODULE  
REFERENCE  
1006D

VIEW WINDOW  
ATTRIBUTES  
1004

PORTAL MODULE  
REFERENCE  
1006E

17/29

FIG. 10F

PORTAL  
VIEW PROFILE  
1000

142 <ModuleInstance  
143 classid="com.hp.ov.portal.modules.service.SvcHe  
144 althServlet" display="yes"  
145 help="/OvSipDocs/C/help/VPNavigator/healthView.  
146 html" id="module11" rollupState="down"  
147 title="Service Health">  
148 <ServiceHealth details="no"  
149 server="">  
150 <ServiceSummary critical="no"  
151 id="normal" inverse="no" major="no" minor="no"  
152 normal="yes" recursive="yes" scoreName="Normal"  
153 title="Normal Services" warning="no"/>  
154 <ServiceSummary critical="yes"  
155 id="critical" inverse="yes" major="no"  
156 minor="no" normal="no" recursive="yes"  
157 scoreName="Critical" title="Critical Services"  
158 warning="no"/>  
159 <ServiceSummary critical="yes"  
160 id="abnormal" inverse="yes" major="yes"  
161 minor="yes" normal="no" recursive="yes"  
162 scoreName="Abnormal" title="Abnormal Services"  
163 warning="yes"/>  
164 </ServiceHealth>  
165 </ModuleInstance>  
166 </Column>  
167 <Column width="Wide">  
168 <ModuleInstance  
169 classid="com.hp.ov.portal.modules.service.SvcLi  
170 stServlet" display="yes"  
171 help="/OvSipDocs/C/help/VPNavigator/browserView.  
172 .html" id="module7" rollupState="down"  
173 title="Service Browser">  
174 <ServiceBrowser details="no"  
175 server="" />  
176 </ModuleInstance>

PORTAL MODULE  
REFERENCE  
1006F

VIEW WINDOW  
ATTRIBUTES  
1004

PORTAL  
MODULE  
1006G

**FIG. 10G**

PORTAL  
VIEW PROFILE  
1000

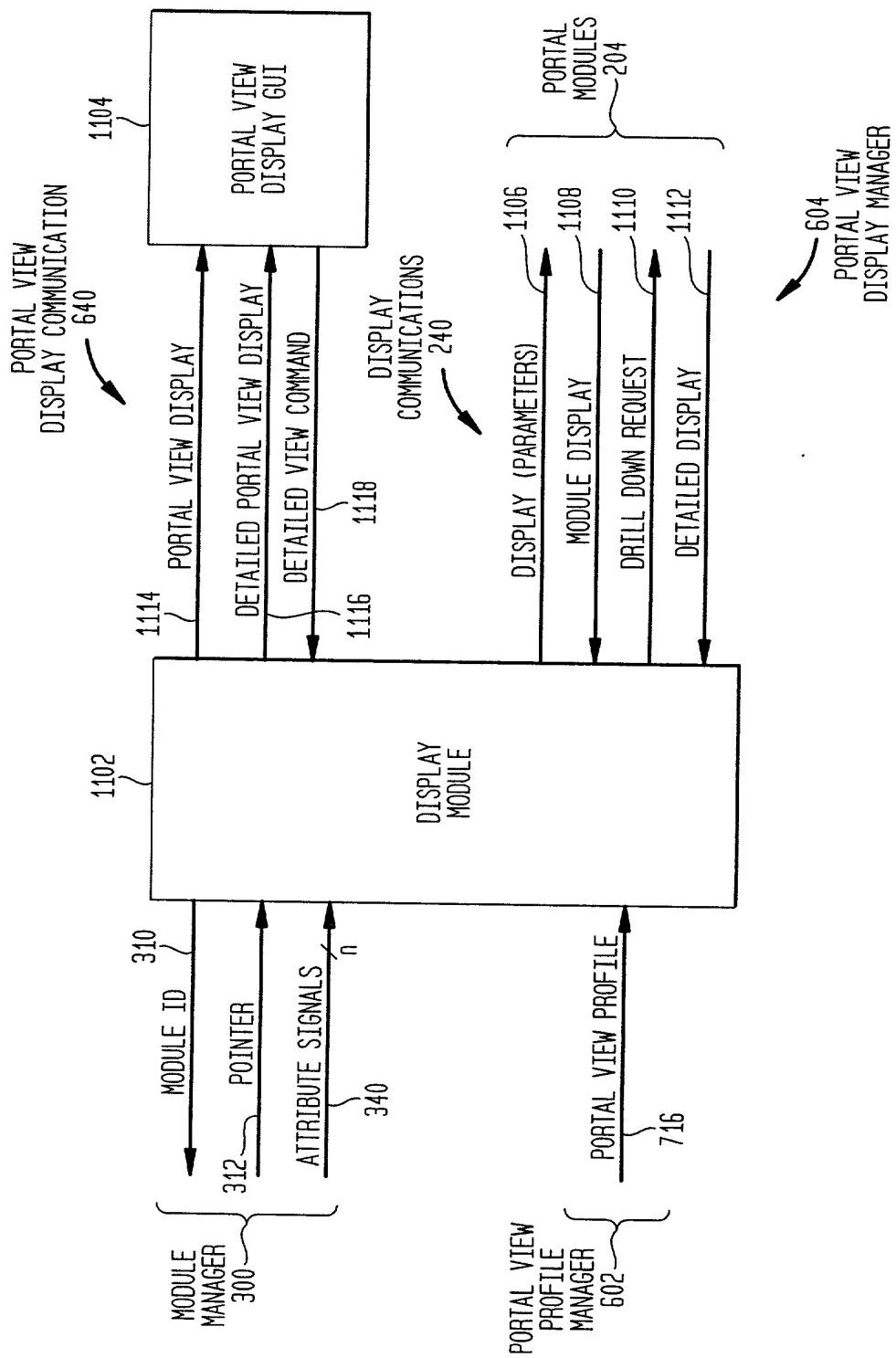
```
177     <ModuleInstance
178     classid="com.hp.ov.portal.modules.service.SvcGr
179     aphServlet" display="yes"
180     help="/OvSipDocs/C/help/VPNavigator/graphView.h
181     tml" id="module8" rollupState="down"
182     title="Service Graph">
183         <ServiceGraph server="" />
184     </ModuleInstance>
185     </Column>
186     </Sheet>
187 </PortalView>
```

PORTAL MODULE REFERENCE 1006H

VIEW WINDOW ATTRIBUTES 1004

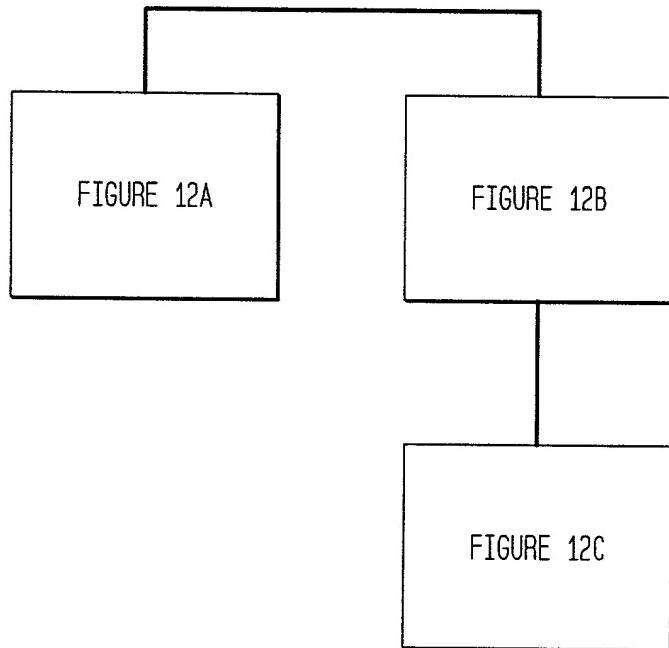
19/29

FIG. 11

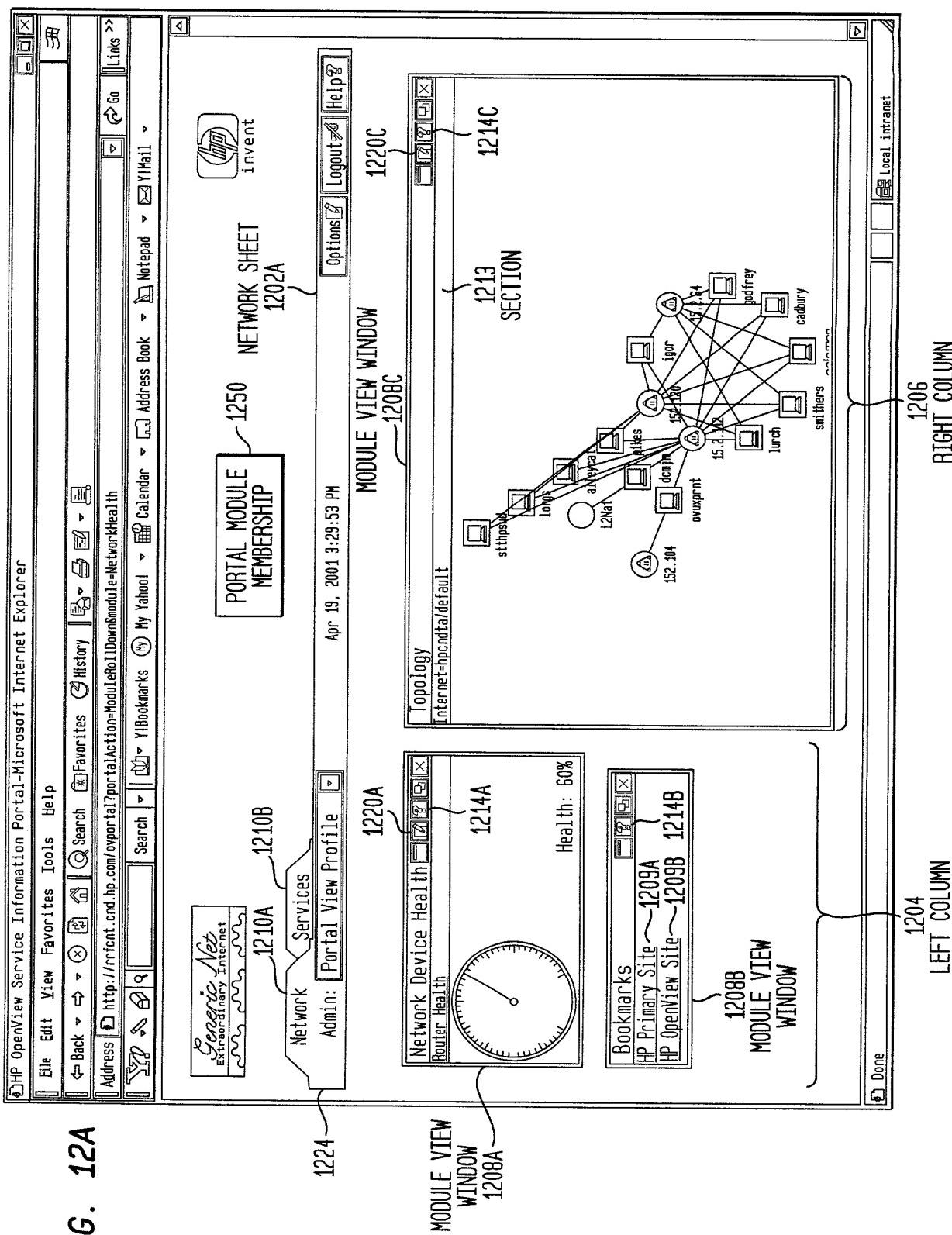


20/29

*FIG. 12*



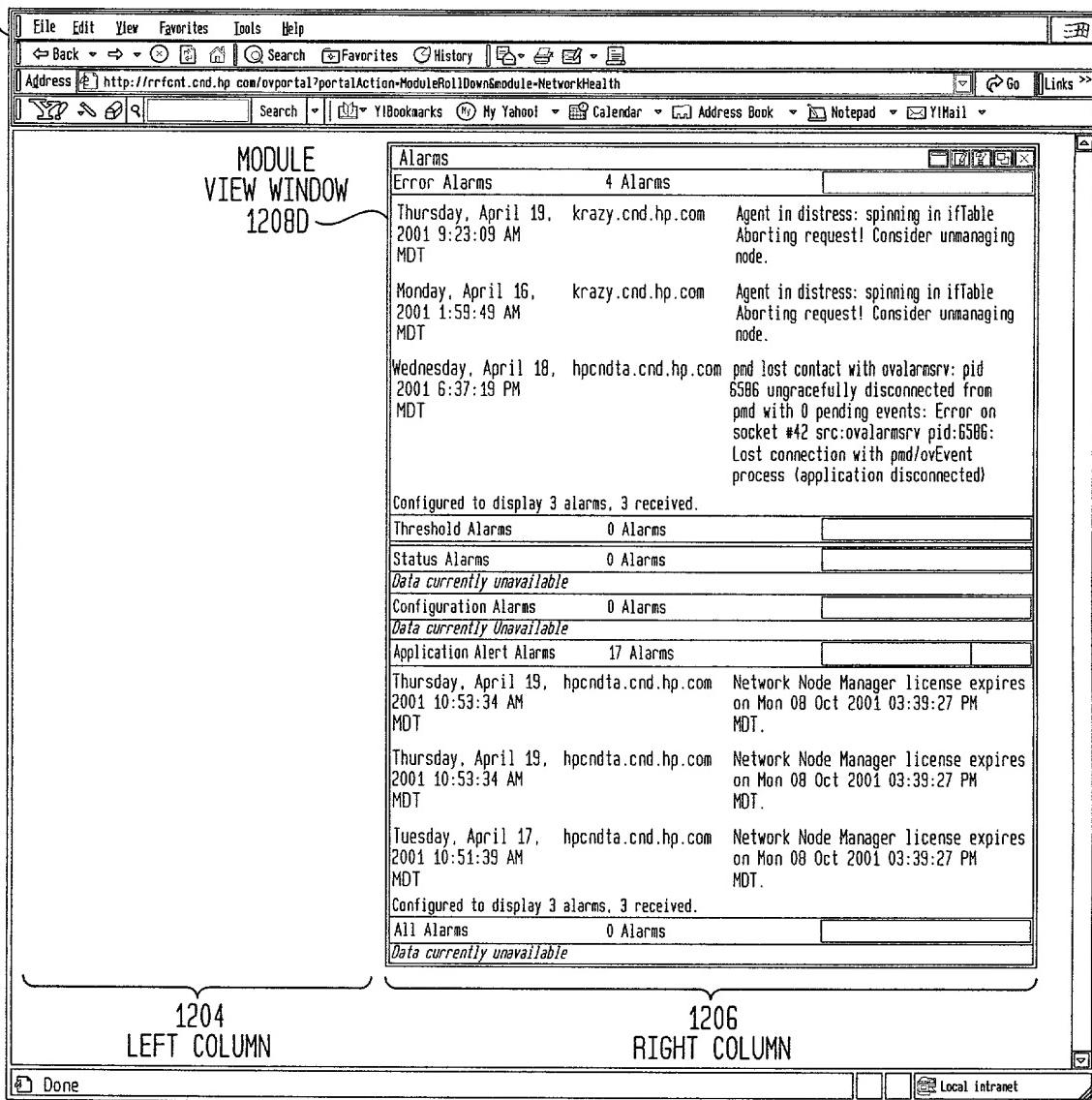
21/29



22/29

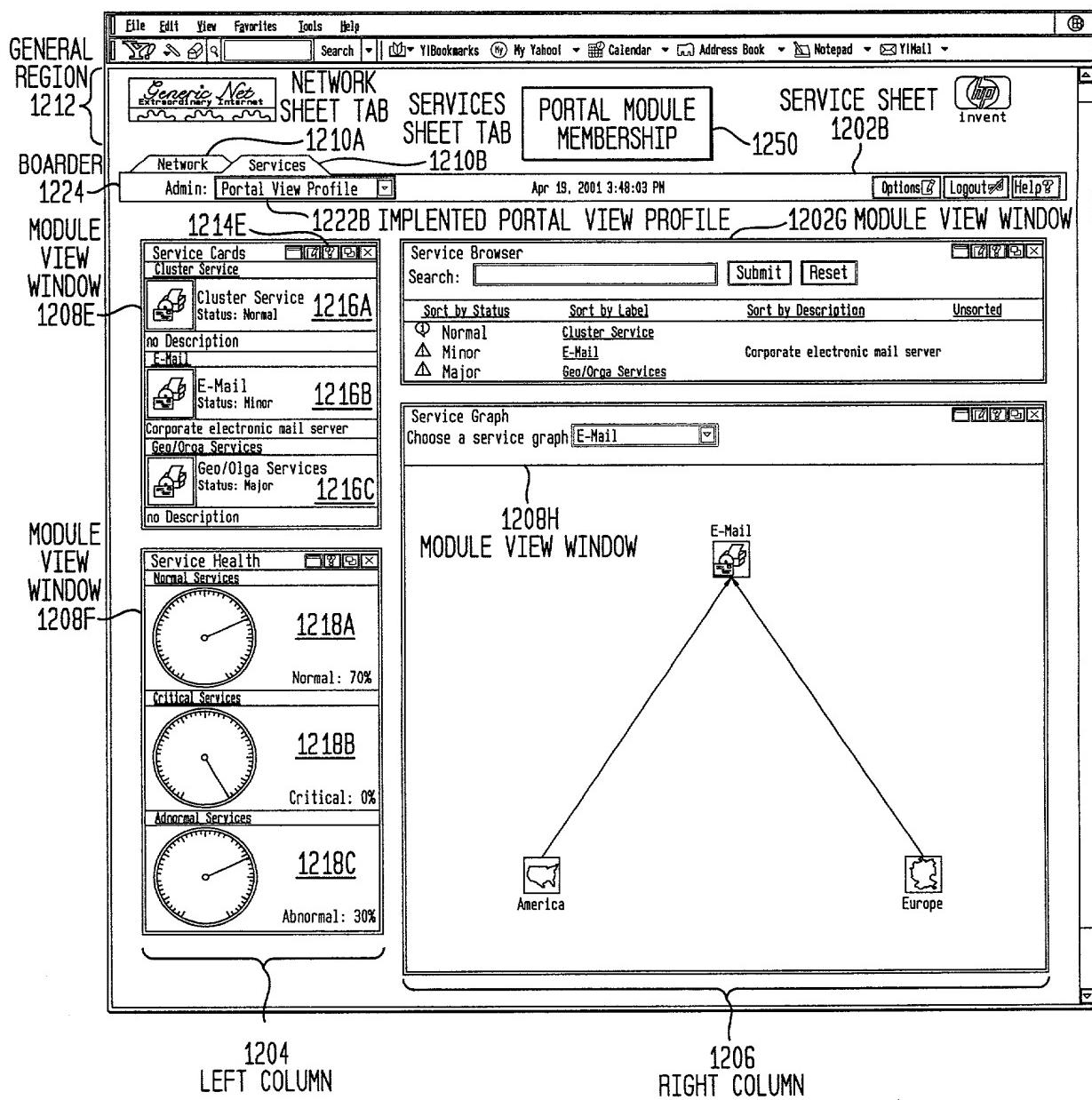
NETWORK  
SHEET  
(CONT)  
1202A

FIG. 12B



23/29

FIG. 12C



24/29

FIG. 13

HP OpenView Service Information Portal-Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Home Search Favorites History

Address http://rrfcnt.cnd.hp.com/ovportal?action=ModuleSpecific&module=NetworkHealth&ModAction=DrillDown&HealthId=RouterHealth

Search Y! Bookmarks My Yahoo! Calendar Address Book Notepad Y! Mail

Generic Net Extraordinary Internet 1300 Admin Apr 20, 2001 11:28:28 AM Home Help

ROUTER HEALTH DETAILED PORTAL VIEW

Network Device Health Router Health

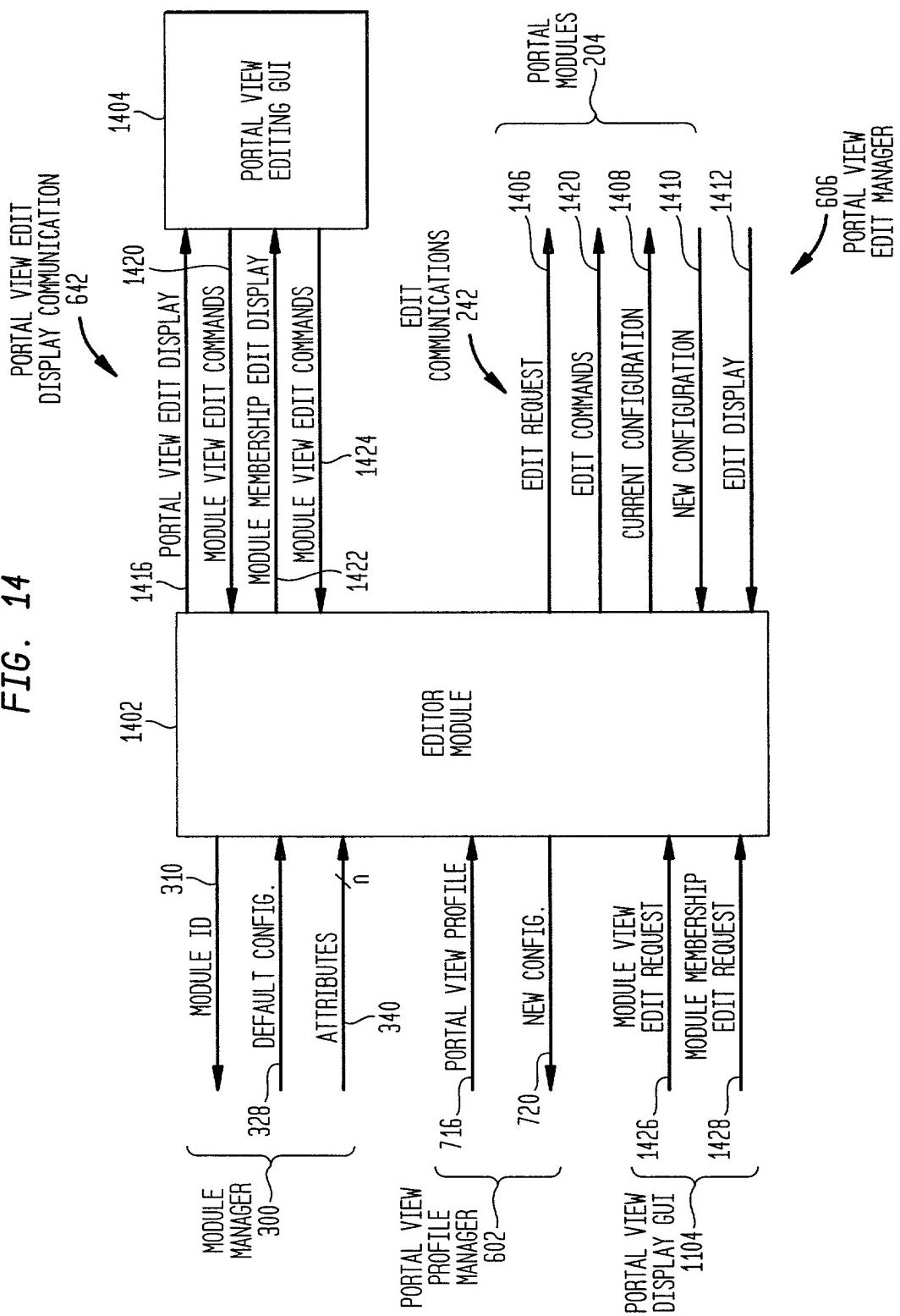
Resource	Overall Health	Interface Health	CPU Utilization Health
coleman.cnd.hp.com	⌚ 33%	⌚ 33%	<input type="radio"/> Data unavailable
stthpsv1.cnd.hp.com	⌚ 40%	⌚ 40%	<input type="radio"/> Data unavailable
pikes.cnd.hp.com	⌚ 40%	⌚ 40%	<input type="radio"/> Data unavailable
hpfcmjm.cnd.hp.com	⌚ 50%	⌚ 50%	<input type="radio"/> Data unavailable
ovuxprnt.cnd.hp.com	⌚ 50%	⌚ 50%	<input type="radio"/> Data unavailable
lurch.cnd.hp.com	⌚ 60%	⌚ 60%	<input type="radio"/> Data unavailable
cadbury.cnd.hp.com	⌚ 60%	⌚ 60%	<input type="radio"/> Data unavailable
igor.cnd.hp.com	⌚ 60%	⌚ 60%	<input type="radio"/> Data unavailable
lobgs.cnd.hp.com	⌚ 66%	⌚ 66%	<input type="radio"/> Data unavailable
alleycat.cnd.hp.com	⌚ 66%	⌚ 66%	<input type="radio"/> Data unavailable
smithers.cnd.hp.com	⌚ 100%	⌚ 100%	<input type="radio"/> Data unavailable
godfrey.cnd.hp.com	⌚ 100%	⌚ 100%	<input type="radio"/> Data unavailable

Done Local intranet

The screenshot shows a Microsoft Internet Explorer window displaying the HP OpenView Service Information Portal. The title bar reads "HP OpenView Service Information Portal-Microsoft Internet Explorer". The address bar shows the URL "http://rrfcnt.cnd.hp.com/ovportal?action=ModuleSpecific&module=NetworkHealth&ModAction=DrillDown&HealthId=RouterHealth". The menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar includes Back, Forward, Home, Search, Favorites, History, and other standard browser icons. The status bar at the bottom right says "Local intranet". The main content area has a header "ROUTER HEALTH DETAILED PORTAL VIEW" with a logo for "Generic Net Extraordinary Internet" and the number "1300". Below this is a sub-header "Network Device Health Router Health". A table lists ten network resources with their overall health, interface health, and CPU utilization status. Most resources show low health levels (⌚ 33% to ⌚ 66%) and "Data unavailable" for CPU utilization. One resource, "smithers.cnd.hp.com", shows 100% health across all metrics. The table has columns for Resource, Overall Health, Interface Health, and CPU Utilization Health. The CPU Utilization column contains radio buttons for "Data unavailable" and "Data available". The "CPU Utilization Health" column also includes a small "invent" logo.

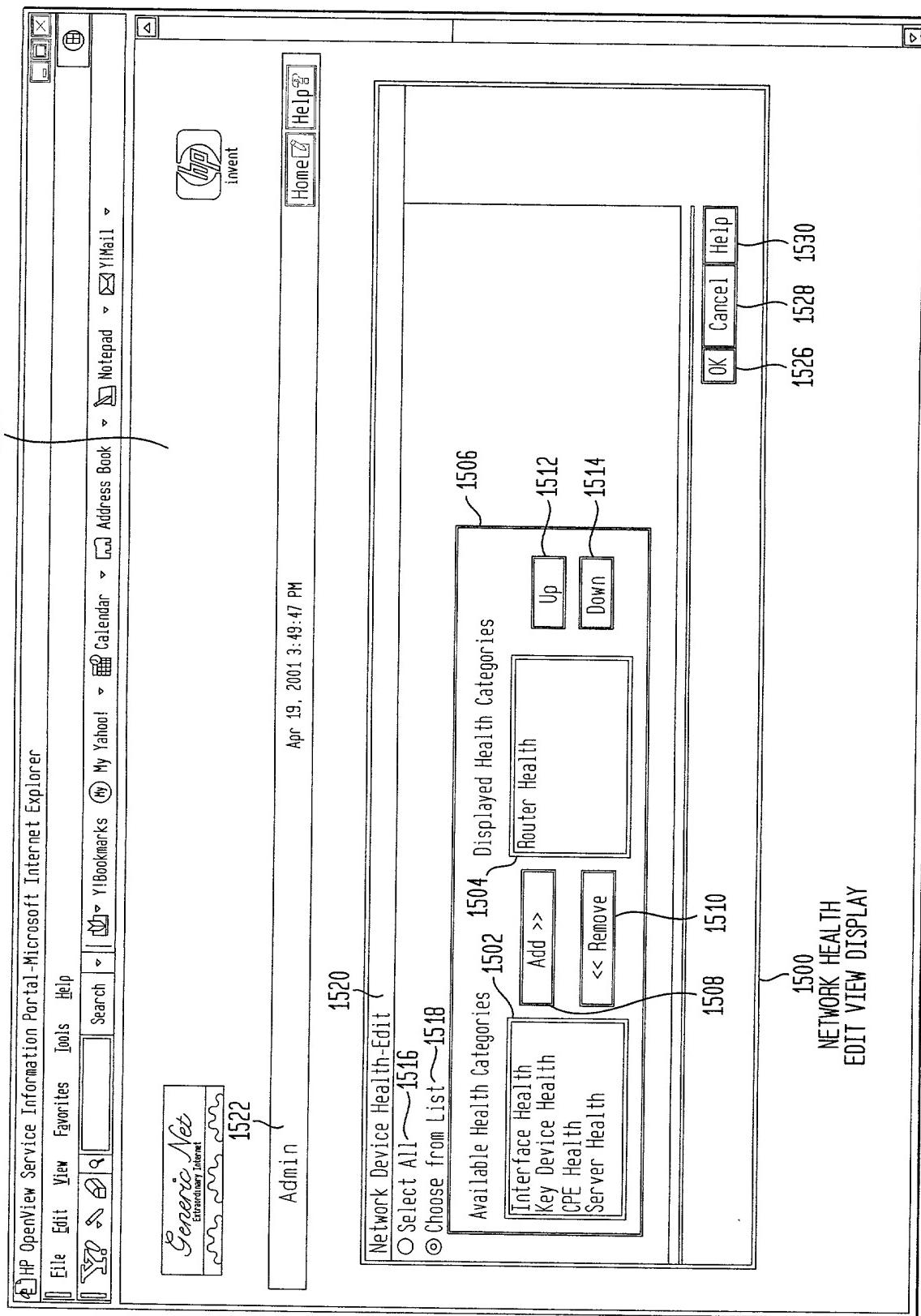
25/29

**FIG. 14**



26/29

FIG. 15 1524



27/29

FIG. 16

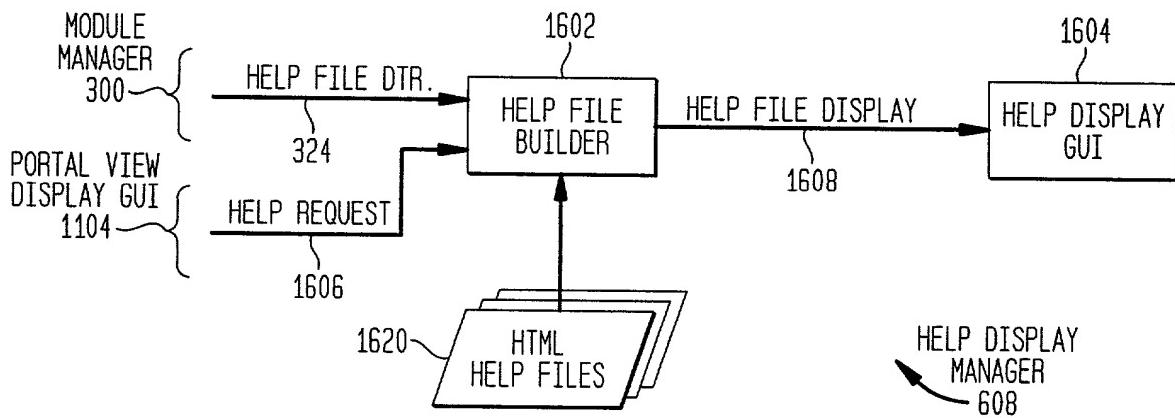


FIG. 17

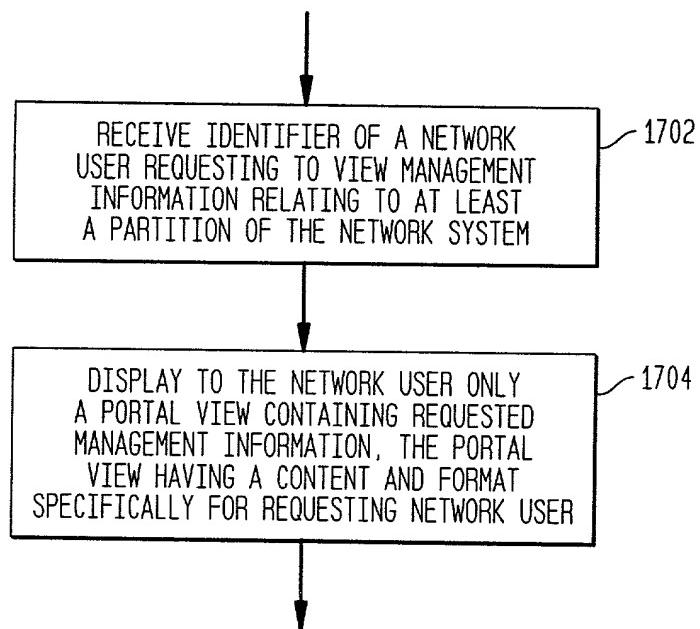
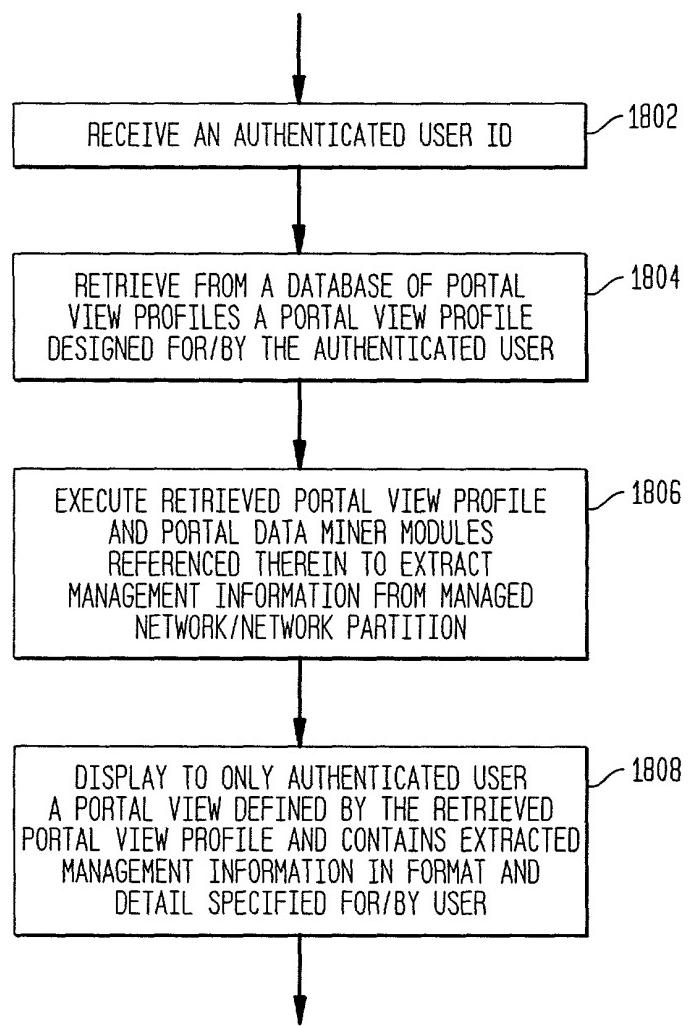


FIG. 18



29/29

FIG. 19

